

## WHAT IS CLAIMED IS:

1. An isolated peptide selected from the group consisting of:
  - (a) a peptide comprising at least 1 epitope or analog selected from the group consisting of: SEQ ID Nos: 42-361, but excluding SEQ ID NO:42, 60, 62, 67, 82, 86, 101, 116, 153, 362, 230, 265, 290, 321, 334, and 345;
  - (b) a peptide comprising at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16a;
  - (c) a peptide comprising at least 3 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16b;
  - (d) a peptide comprising at least 4 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16c;
  - (e) a peptide comprising at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16d;
  - (f) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 17a;
  - (g) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 17b;
  - (h) a peptide comprising at least 3 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 17c;

- (i) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 17d;
- (j) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 18a;
- (k) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 18b;
- (l) a peptide comprising at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 18c;
- (m) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 18d;
- (n) a peptide comprising at least 3 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 19a;
- (o) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 19b;
- (p) a peptide comprising at least 4 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 19c;
- (q) a peptide comprising at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 19d;
- (r) a peptide comprising at least 7 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 20;

- (s) a peptide comprising at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 21;
  - (t) a peptide comprising at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 22;
  - (u) a peptide comprising at least 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 23;
  - (v) a peptide comprising at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 26;
  - (w) a peptide comprising at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 27;
  - (x) a peptide comprising at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 28;
  - (y) a peptide comprising at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 29; and
  - (z) a peptide comprising at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 30.
2. The peptide of claim 1, which comprises at least 2 of said epitopes or analogs.
  3. The peptide of claim 1, which comprises at least 3 of said epitopes or analogs.
  4. The peptide of claim 1, which comprises at least 4 of said epitopes or analogs.

5. The peptide of claim 1, which comprises at least 5 of said epitopes or analogs.
6. The peptide of claim 1, which comprises at least 6 of said epitopes or analogs.
7. The peptide of claim 1, which comprises at least 7 of said epitopes or analogs.
8. The peptide of claim 1, which comprises at least 8 of said epitopes or analogs.
9. The peptide of claim 1, which comprises at least 9 of said epitopes or analogs.
10. An isolated peptide comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:42, 60, 62, 67, 82, 86, 101, 116, 153, 362, 230, 265, 290, 321, 334, and 345; and (b) an epitope or analog selected from the group consisting of: SEQ ID NO:41-59, 61, 63-66, 68-81, 83-85, 87-100, 102-115, 117-152, 154-229, 231-264, 266-289, 291-320, 322-333, 335-344, and 346-361.
11. An isolated peptide comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:42, 60, 62, 67, 82, 86, 101, 116, 153, 362, 230, 265, 290, 321, 334, and 345; and (b) an epitope or analog selected from the group consisting of: SEQ ID NO:368-745.
12. An isolated peptide comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:1-25; and (b) an epitope or analog selected from the group consisting of: SEQ ID NO:41-59, 61, 63-66, 68-81, 83-85, 87-100, 102-115, 117-152, 154-229, 231-264, 266-289, 291-320, 322-333, 335-344, and 346-361.
13. An isolated peptide comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:1-25; and

- (b) an epitope or analog selected from the group consisting of:  
SEQ ID NO:368-745.
- 14. An isolated peptide selected from the group consisting of:
  - (a) a peptide comprising at least 2 epitopes or analogs selected  
from the group consisting of: SEQ ID NO:42, 44, 46, 51,  
52, 54, and 55;
  - (b) a peptide comprising at least 4 epitopes or analogs selected  
from the group consisting of: SEQ ID NO: 57, 60, 62, 67,  
68, 69, 70, 73, and 75;
  - (c) a peptide comprising at least 2 epitopes or analogs selected  
from the group consisting of: SEQ ID NO:77, 82, 90, 91,  
96, 99, 102, and 103;
  - (d) a peptide comprising at least 2 epitopes or analogs selected  
from the group consisting of: SEQ ID NO:104, 107, 111,  
114, 116, 119, and 124;
  - (e) a peptide comprising at least 1 epitope or analog selected  
from the group consisting of: SEQ ID NO:133, 136, and  
155;
  - (f) a peptide comprising at least 2 epitopes or analogs selected  
from the group consisting of: SEQ ID NO:140, 146, and  
153;
  - (g) a peptide comprising at least 1 epitope or analog selected  
from the group consisting of: SEQ ID NO:161, 167, 170,  
172, 178, 180, 181, and 182;
  - (h) a peptide comprising at least 1 epitope or analog selected  
from the group consisting of: SEQ ID NO:186, 188, 189,  
191, 194, 198, 200, 201, and 208;
  - (i) a peptide comprising at least 2 epitopes or analogs selected  
from the group consisting of: SEQ ID NO:211, 216, 219,  
221, 228, 230, 234, and 236;

- (j) a peptide comprising at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:238, 239, 240, 242, and 246;
  - (k) a peptide comprising at least 3 epitopes or analogs selected from the group consisting of: SEQ ID NO:256, 263, 265, 269, 272, 278, 279, 281, 282, 285, 287, and 290;
  - (l) a peptide comprising at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:292, 293, 304, 305, 308, and 310;
  - (m) a peptide comprising at least 4 epitopes or analogs selected from the group consisting of: SEQ ID NO:316, 321, 324, 345, 331-336, 344, 345, and 351;
  - (n) a peptide comprising at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:356 and 361.
15. The peptide of any one of claims 1-14, which comprises an HTL peptide.
16. A composition comprising the peptide of any of claims 1-15, and a diluent.
17. A composition comprising:
- (aa) at least 1 epitope or analog selected from the group consisting of: SEQ ID Nos: 42-361, but excluding SEQ ID NO:42, 60, 62, 67, 82, 86, 101, 116, 153, 362, 230, 265, 290, 321, 334, and 345;
  - (bb) at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16a;
  - (cc) at least 3 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16b;
  - (dd) at least 4 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16c;

- (ee) at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 16d;
- (ff) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 17a;
- (gg) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 17b;
- (hh) at least 3 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 17c;
- (ii) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 17d;
- (jj) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 18a;
- (kk) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 18b;
- (ll) at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 18c;
- (mm) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 18d;
- (nn) at least 3 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 19a;
- (oo) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 19b;
- (pp) at least 4 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 19c;
- (qq) at least 1 epitope or analog selected from the group consisting of the epitopes and analogs in Table 19d;
- (rr) at least 7 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 20;
- (ss) at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 21;

- (tt) at least 2 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 22;
  - (uu) at least 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 23;
  - (vv) at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 26;
  - (ww) at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 27;
  - (xx) at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 28;
  - (yy) at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 29; and
  - (zz) at least 1, 2, 3, 4, 5, or 6 epitopes or analogs selected from the group consisting of the epitopes and analogs in Table 30.
18. The composition of claim 17, which comprises at least 2 of said epitopes or analogs.
  19. The composition of claim 17, which comprises at least 3 of said epitopes or analogs.
  20. The composition of claim 17, which comprises at least 4 of said epitopes or analogs.
  21. The composition of claim 17, which comprises at least 5 of said epitopes or analogs.
  22. The composition of claim 17, which comprises at least 6 of said epitopes or analogs.
  23. The composition of claim 17, which comprises at least 7 of said epitopes or analogs.



24. The composition of claim 17, which comprises at least 8 of said epitopes or analogs.
25. The composition of claim 17, which comprises at least 9 of said epitopes or analogs.
26. A composition comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:42, 60, 62, 67, 82, 86, 101, 116, 153, 362, 230, 265, 290, 321, 334, and 345; and (b) an epitope or analog selected from the group consisting of: SEQ ID NO:41-59, 61, 63-66, 68-81, 83-85, 87-100, 102-115, 117-152, 154-229, 231-264, 266-289, 291-320, 322-333, 335-344, and 346-361.
27. A composition comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:42, 60, 62, 67, 82, 86, 101, 116, 153, 362, 230, 265, 290, 321, 334, and 345; and (b) an epitope or analog selected from the group consisting of: SEQ ID NO:368-745.
28. A composition comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:1-25; and (b) an epitope or analog selected from the group consisting of: SEQ ID NO:41-59, 61, 63-66, 68-81, 83-85, 87-100, 102-115, 117-152, 154-229, 231-264, 266-289, 291-320, 322-333, 335-344, and 346-361.
29. A composition comprising (a) an epitope or analog selected from the group consisting of: SEQ ID NO:1-25; and (b) an epitope or analog selected from the group consisting of: SEQ ID NO:368-745.
30. A composition selected from the group consisting of:
  - (o) at least 2 epitopes or analogs selected from the group consisting of: SEQ ID NO:42, 44, 46, 51, 52, 54, and 55;

- (p) at least 4 epitopes or analogs selected from the group consisting of: SEQ ID NO: 57, 60, 62, 67, 68, 69, 70, 73, and 75;
- (q) at least 2 epitopes or analogs selected from the group consisting of: SEQ ID NO:77, 82, 90, 91, 96, 99, 102, and 103;
- (r) at least 2 epitopes or analogs selected from the group consisting of: SEQ ID NO:104, 107, 111, 114, 116, 119, and 124;
- (s) at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:133, 136, and 155;
- (t) at least 2 epitopes or analogs selected from the group consisting of: SEQ ID NO:140, 146, and 153;
- (u) at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:161, 167, 170, 172, 178, 180, 181, and 182;
- (v) at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:186, 188, 189, 191, 194, 198, 200, 201, and 208;
- (w) at least 2 epitopes or analogs selected from the group consisting of: SEQ ID NO:211, 216, 219, 221, 228, 230, 234, and 236;
- (x) at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:238, 239, 240, 242, and 246;
- (y) at least 3 epitopes or analogs selected from the group consisting of: SEQ ID NO:256, 263, 265, 269, 272, 278, 279, 281, 282, 285, 287, and 290;
- (z) at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:292, 293, 304, 305, 308, and 310;

- (aa) at least 4 epitopes or analogs selected from the group consisting of: SEQ ID NO:316, 321, 324, 345, 331-336, 344, 345, and 351;
  - (bb) at least 1 epitope or analog selected from the group consisting of: SEQ ID NO:356 and 361.
31. The composition of any of claims 17-30, which further comprises an HTL peptide.